



US009636612B2

(12) **United States Patent**
Meyer et al.

(10) **Patent No.:** **US 9,636,612 B2**
(45) **Date of Patent:** **May 2, 2017**

(54) **FILTER HOUSING FOR EXCHANGEABLE FILTER**

(71) Applicant: **Sartorius Stedim Biotech GmbH**,
Goettingen (DE)

(72) Inventors: **Theo Meyer**, Holzerode (DE);
Christian Weber, Hessisch Lichtenau (DE)

(73) Assignee: **Sartorius Stedim Biotech GmbH** (DE)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **14/389,440**

(22) PCT Filed: **Mar. 7, 2013**

(86) PCT No.: **PCT/EP2013/000683**

§ 371 (c)(1),

(2) Date: **Sep. 30, 2014**

(87) PCT Pub. No.: **WO2013/143651**

PCT Pub. Date: **Oct. 3, 2013**

(65) **Prior Publication Data**

US 2015/0060343 A1 Mar. 5, 2015

(30) **Foreign Application Priority Data**

Mar. 30, 2012 (DE) 20 2012 003 252

(51) **Int. Cl.**
B01D 35/30 (2006.01)

(52) **U.S. Cl.**
CPC **B01D 35/30** (2013.01); **B01D 2201/304** (2013.01)

(58) **Field of Classification Search**

None

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,120,794 A 10/1978 Taylor
4,525,725 A 6/1985 Kinoshita et al.
(Continued)

FOREIGN PATENT DOCUMENTS

AT 26543 7/1987
DE 3617420 11/1987
JP 8-276107 10/1996

OTHER PUBLICATIONS

English Translation of International Preliminary report on patentability (Chapter 1) for PCT/EP2013/000683.

Primary Examiner — Thomas M Lithgow

(74) *Attorney, Agent, or Firm* — Gerald E. Hespos;
Michael J. Porco; Matthew T. Hespos

(57) **ABSTRACT**

The invention relates to a filter housing for exchangeable filters, having a housing base for accommodating the filter and having a housing dome which engages over the filter, wherein the housing base and the housing dome are connected to one another by means of an aseptic clamping connection which has a groove-type clamping fitting on the housing base and has a flange-type clamping fitting on the housing dome, these being fixed against one another in their connected position by means of a clamp, wherein the groove-type clamping fitting has a seal groove with a seal by means of which the groove-type clamping fitting can be sealed off with respect to the flange-type clamping fitting, wherein the housing base has a port for the supply of liquid to be filtered and has a port for the discharge of filtered liquid, and wherein the housing base has, transversely with respect to the housing longitudinal axis, a base surface which is adjacent to the face surface of the inserted filter.

11 Claims, 5 Drawing Sheets

